

# United States Patent and Trademark Office

een

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/705,976	11/13/2003	Tatsuya Jimmei	245434US2RD	6769	
	850 7590 06/01/2007 BLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			• EXAMINER	
1940 DUKE STREET			ZHU, BO HUI ALVIN		
ALEXANDRIA, VA 22314			ART UNIT	PAPER NUMBER	
			2616	•	
				· · · · · · · · · · · · · · · · · · ·	
			NOTIFICATION DATE	DELIVERY MODE	
	•		06/01/2007	ELECTRONIC	

## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com oblonpat@oblon.com jgardner@oblon.com

	Application No.	Applicant(s)				
	10/705,976	JIMMEI ET AL.				
Office Action Summary	Examiner	Art Unit				
	Bo Hui A. Zhu	2616				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	lely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 13 No	Responsive to communication(s) filed on 13 November 2003.					
•==	,—					
,	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4)  Claim(s) <u>1-8</u> is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5)  Claim(s) is/are allowed. 6)  Claim(s) <u>1-8</u> is/are rejected. 7)  Claim(s) is/are objected to. 8)  Claim(s) are subject to restriction and/or						
Application Papers						
9) ☐ The specification is objected to by the Examine 10) ☑ The drawing(s) filed on 13 November 2003 is/a  Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) ☐ The oath or declaration is objected to by the Ex	re: a) $\square$ accepted or b) $\square$ object drawing(s) be held in abeyance. See ion is required if the drawing(s) is object.	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. § 119						
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summary Paper No(s)/Mail Do	ate				
Information Disclosure Statement(s) (PTO/SB/08)     Paper No(s)/Mail Date	5)  Notice of Informal F 6)  Other:	atent Application				

Page 2

### Claim Objections

**DETAILED ACTION** 

1. Claim 4 is objected to because of the following informalities: Claim 4 recites a limitation "... to detect a second identifier ...". In accordance with the disclosure of the specification, there should be only one identifier, and that one identifier can be detected in multiple incidences. However, the saying of "a second identifier" is misleading and lacks support from the specification. For clarity of the subject matter, the Examiner suggests changing the language to "... to detect the identifier ...". Also, on line 14, the claim language "transmit the communication device to the response packet" is erroneous. The Examiner suggests changing the language to "transmit the response packet to the communication device" for clarity of the subject matter. Appropriate correction is required.

### Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 8 and 9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 7 claims a computer program product comprising computer program codes. A computer program is a non-statutory subject matter unless it is coded in a computer readable medium.

Art Unit: 2616

### Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 5. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Rajahalme (US 2004/0107234).
  - (1) with regard to claims 1 and 5:

Rajahalme discloses a system and method, comprising: a client (11 on Fig. 1), a router (5 on Fig. 1) and a server (21 on Fig. 1), which comprises a transmission unit configured to transmit a packet to a prescribed destination address; a reception unit configured to receive a response packet for responding to the packet transmitted by the transmission unit; a first detection unit configured to detect a source address contained in the response packet received by the reception unit; a second detection unit configured to detect an identifier indicating that an anycast address is assigned to another communication device that has the prescribed destination address, which is contained in the response packet, when the source address detected by the first detection unit and the prescribed destination address are different; and a verification unit configured to verify the response packet, according to the identifier detected by the second detection unit (see page 3, paragraphs [0031] – [0033]. The client 11 transmits

Art Unit: 2616

a packet to the server 21 and receives a response from the server. The home address destination option is the identifier; the anycast address is the prescribed destination address; the source address of the response message is the real interface lpv6 address of the server; the first and second detection unit and the verification unit are inherent to detecting the source address and the home address destination option in the response message and making response to it).

### (2) with regard to claim 3:

Rajahalme discloses a server device (21 on Fig. 1) connected to a first network (anycast network: 21 – 23) and having an anycast address, comprising: a reception unit configured to receive a packet transmitted to the anycast address, from a communication device (11 on Fig. 1) connected to a second network (network: 11 and 12); an identifier attaching unit configured to attach to a response packet for responding to the packet an identifier indicating that a source of the response packet has the anycast address; and a transmission unit configured to transmit the response packet to the communication device (see paragraph [0031] – [0033]. The server 21 receives a packet from client 11. The home address destination option is the identifier being attached to the response message by the server 21 and the response message is sent to the client 11).

# Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2616

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 7. Claims 2, 4, 6 are rejected under 35 U.S.C. 103(a) as being unpaténtable over Rajahalme (US 2004/0107234).
  - (1) with regard to claims 2 and 6:

Rajahalme discloses all of the subject matter as discussed above, and further discloses that a boundary router device (5 on Fig. 1) located at a boundary between a first network to which a server device having an anycast address belongs (anycast group 21 – 22 on Fig. 1) and a second network (clients 11 and 12); and the router device comprises a reception unit configured to receive one packet destined to the server device from a communication device on the second network; a first transfer unit configured to transfer the one packet to the server device; a third reception unit configured to receive one response packet for responding to the one packet from the server device; and another transfer unit configured to transfer the one response packet to the communication device when the router judges that the response packet should be transferred (inherent because the router would have to receive requests from clients and forward them to the servers and receive responses from the servers and forward them to the clients, see paragraph [0033] and Fig. 1).

Rajahalme does not expressly disclose the router device (5) comprises: a detection unit configured to detect an identifier indicating that a source address different from the anycast address is attached, which is contained in the response packet; a verification unit configured to verify that the one response packet is a response

transmitted from the server device, according to information regarding server devices having the anycast address in the second network which are provided in advance, when the identifier is detected by the third detection unit; a transfer control unit configured to control whether or not to transfer the one response packet to the communication device, according to a verification result of the second verification unit.

However, Rajahalme teaches a system comprising a detection unit configured to detect a source address contained in the response packet received by the reception unit; a second detection unit configured to detect an identifier indicating that an anycast address is assigned to another communication device that has a prescribed destination address, which is contained in the response packet, when the source address detected by the first detection unit and the prescribed destination address are different; and a verification unit configured to verify the response packet, according to the identifier detected by the second detection unit (see page 3, paragraphs [0031] – [0033]. The home address destination option is the identifier; the anycast address is the prescribed destination address; the source address of the response message is the real interface lpv6 address of the server; the first and second detection unit and the verification unit are all inherent to detecting the source address and the home address destination option in the response message and making response to it).

It would have been desirable to use the same concept and system as disclosed by Rajahalme into the implementation of the router device because it would simplify the design of the system. Therefore, it would have been obvious to one of ordinary skill in

the art at the time of the invention to use the system as disclosed by Rajahalme in the implementation of the router device in order to simplify the design of the system.

### (2) with regard to claim 4:

Rajahalme discloses a system, comprising: a server (21 on Fig. 1) connected to a first network (anycast network: servers 21 - 23), a client (11 on Fig. 1) connected to a second network (network: clients 11 and 12), a router (5 on Fig. 1); the client comprises: a transmission unit configured to transmit a packet to a prescribed destination address; a reception unit configured to receive a response packet for responding to the packet transmitted by the transmission unit (see page 3, paragraphs [0031] - [0033]. The client 11 transmits a packet to the server 21 and receives a response from the server); the server device comprises: a reception unit configured to receive a packet transmitted to the anycast address from the client (11 on Fig. 1); an identifier attaching unit configured to attach to a response packet for responding to the packet an identifier indicating that a source of the response packet has the anycast address; and a transmission unit configured to transmit the response packet to the client (see paragraph [0031] – [0033]. The server 21 receives a packet from client 11. The home address destination option is the identifier being attached to the response message by the server 21 and the response message is sent to the client 11); the router comprises: a reception unit configured to receive one packet destined to the server device from a communication device on the second network; a first transfer unit configured to transfer the one packet to the server device; a third reception unit configured to receive one response packet for responding to the one packet from the server device; and another

transfer unit configured to transfer the one response packet to the communication device when the router judges that the response packet should be transferred (inherent because the router would have to receive requests from clients and forward them to the servers and receive responses from the servers and forward them to the clients, see paragraph [0033] and Fig. 1).

Rajahalme does not expressly disclose the router device (5) comprises: a detection unit configured to detect an identifier indicating that a source address different from the anycast address is attached, which is contained in the response packet; a verification unit configured to verify that the one response packet is a response transmitted from the server device, according to information regarding server devices having the anycast address in the second network which are provided in advance, when the identifier is detected by the third detection unit; a transfer control unit configured to control whether or not to transfer the one response packet to the communication device, according to a verification result of the second verification unit.

However, Rajahalme teaches a system comprising a detection unit configured to detect a source address contained in the response packet received by the reception unit; a second detection unit configured to detect an identifier indicating that an anycast address is assigned to another communication device that has a prescribed destination address, which is contained in the response packet, when the source address detected by the first detection unit and the prescribed destination address are different; and a verification unit configured to verify the response packet, according to the identifier detected by the second detection unit (see page 3, paragraphs [0031] – [0033]. The

Art Unit: 2616

home address destination option is the identifier; the anycast address is the prescribed destination address; the source address of the response message is the real interface lpv6 address of the server; the first and second detection unit and the verification unit are all inherent to detecting the source address and the home address destination option in the response message and making response to it).

It would have been desirable to use the same concept and system as disclosed by Rajahalme into the implementation of the router device because it would simplify the design of the system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the system as disclosed by Rajahalme in the implementation of the router device in order to simplify the design of the system.

8. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over unpatentable over Rajahalme (US 2004/0107234) in view of Langberg et al. (US 5,852,630).

### (1) with regard to claim 7:

Rajahalme discloses a method, comprising: a client (11 on Fig. 1), a router (5 on Fig. 1) and a server (21 on Fig. 1), which comprises a transmission unit configured to transmit a packet to a prescribed destination address; a reception unit configured to receive a response packet for responding to the packet transmitted by the transmission unit; a first detection unit configured to detect a source address contained in the response packet received by the reception unit; a second detection unit configured to detect an identifier indicating that an anycast address is assigned to another communication device that has the prescribed destination address, which is contained

in the response packet, when the source address detected by the first detection unit and the prescribed destination address are different; and a verification unit configured to verify the response packet, according to the identifier detected by the second detection unit (see page 3, paragraphs [0031] – [0033]. The client 11 transmits a packet to the server 21 and receives a response from the server. The home address destination option is the identifier; the anycast address is the prescribed destination address; the source address of the response message is the real interface lpv6 address of the server; the first and second detection unit and the verification unit are inherent to detecting the source address and the home address destination option in the response message and making response to it).

However, Rajahalme does not teach using a computer program coded in computer readable medium to perform the method as discussed above.

Langberg et al. teaches a method for a transceiver warm start activation procedure can be implemented in software stored in a computer-readable medium. The computer-readable medium is an electronic, magnetic, optical, or other physical device or means that can contain or store a computer program for use by or in connection with a computer-related system or method (column 3, lines 51-65). Using a computer readable medium with program instruction code would be desirable because it would perform the same function of using hardware but offer the advantage of less expense, adaptability and flexibility. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the limitation as taught by

Langberg et al. into the system of Rajahalme so as to reduce cost and improve the adaptability and flexibility of the logic simulation.

### (2) with regard to claim 8:

Rajahalme discloses all of the subject matter as discussed above, and further discloses that a boundary router device (5 on Fig. 1) located at a boundary between a first network to which a server device having an anycast address belongs (anycast group 21 – 22 on Fig. 1) and a second network (clients 11 and 12); and the router device comprises a reception unit configured to receive one packet destined to the server device from a communication device on the second network; a first transfer unit configured to transfer the one packet to the server device; a third reception unit configured to receive one response packet for responding to the one packet from the server device; and another transfer unit configured to transfer the one response packet to the communication device when the router judges that the response packet should be transferred (inherent because the router would have to receive requests from clients and forward them to the servers and receive responses from the servers and forward them to the clients, see paragraph [0033] and Fig. 1).

Rajahalme does not expressly disclose the router device (5) comprises: a detection unit configured to detect an identifier indicating that a source address different from the anycast address is attached, which is contained in the response packet; a verification unit configured to verify that the one response packet is a response transmitted from the server device, according to information regarding server devices having the anycast address in the second network which are provided in advance, when

the identifier is detected by the third detection unit; a transfer control unit configured to control whether or not to transfer the one response packet to the communication

device, according to a verification result of the second verification unit.

However, Rajahalme teaches a system comprising a detection unit configured to detect a source address contained in the response packet received by the reception unit; a second detection unit configured to detect an identifier indicating that an anycast address is assigned to another communication device that has a prescribed destination address, which is contained in the response packet, when the source address detected by the first detection unit and the prescribed destination address are different; and a verification unit configured to verify the response packet, according to the identifier detected by the second detection unit (see page 3, paragraphs [0031] – [0033]. The home address destination option is the identifier; the anycast address is the prescribed destination address; the source address of the response message is the real interface lpv6 address of the server; the first and second detection unit and the verification unit are all inherent to detecting the source address and the home address destination option in the response message and making response to it).

It would have been desirable to use the same concept and system as disclosed by Rajahalme into the implementation of the router device because it would simplify the design of the system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the system as disclosed by Rajahalme in the implementation of the router device in order to simplify the design of the system.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bo Hui A. Zhu whose telephone number is (571)270-1086. The examiner can normally be reached on Mon-Thur 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BZ <sup>-</sup> May 18, 2007

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600